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Dementia study lists everyday factors that may influence risk

Experts have created a shortlist of environmental factors that may contribute to our risk of developing dementia.

The list includes exposure to air pollution and a lack of vitamin D but researchers caution that the evidence is not yet sufficient to draw solid conclusions.

The team say that future research should focus on their shortlist, which points to the factors that show at least moderate evidence of a link.

Dementia is known to be associated with lifestyle factors such as high blood pressure in mid-life, smoking, diabetes, obesity, depression and low educational attainment, as well as genetic factors.

These risk factors however, leave around a third of dementia risk unexplained. Researchers led by the University of Edinburgh sought to determine whether other issues are at play, including the environment in which we live.

The team from the University's Alzheimer Scotland Dementia Research Centre reviewed dozens of previous studies that have considered environmental risk factors linked to dementia.

They found that a lack of vitamin D – produced by the body through exposure to sunlight – and exposure to air pollution were implicated, along with occupational exposure to some types of pesticide.

Excessive levels of minerals found in drinking water may be linked to the disease, the research suggested, but the evidence was mixed.

Dementia is a major global public health crisis that is expected to grow as people live longer. Almost 47 million people live with dementia worldwide and this is predicted to increase to more than 131 million by 2050.

Estimates indicate the disease costs the UK more than £26 billion annually and worldwide dementia care costs exceed the market value of Google or Apple each year.

Ranked among the top universities in the world

There is a growing consensus among doctors that a significant proportion of cases could be prevented or delayed by addressing environmental factors linked to the disease.

The team behind the latest research says future studies should focus on the short list of environmental risk factors flagged up in their study.

The research, published in the journal *BMC Geriatrics*, was funded by Alzheimer Scotland and Dr Russ was supported by Alzheimer Scotland through the Marjorie MacBeath fellowship.

Dr Tom Russ, of the Alzheimer Scotland Dementia Research Centre at the University of Edinburgh, said: “Our ultimate goal is to prevent or delay the onset of dementia. Environmental risk factors are an important new area to consider here, particularly since we might be able to do something about them.

“We found that the evidence is particularly strong for air pollution and vitamin D deficiency. But we really need more research to find out whether these factors are actually causing dementia and how, and if so, what we can do to prevent this.”

Jim Pearson, Director of Policy and Researcher at Alzheimer Scotland, said: “We welcome the findings of this important area of research from our colleagues at the Alzheimer Scotland Dementia Research Centre at the University of Edinburgh. The research study substantially improves our knowledge and understanding of environmental factors which may increase the risk of developing dementia and provides a basis for further, and more focussed, research in this area.

“Dementia is a global public health priority. There are 90,000 people living with dementia in Scotland and the number is on the rise. We need much more research into the causes of dementia, treatments and supports that allow people to live well with dementia as well as the prevention and cure of dementia.”

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After the embargo has lifted, the study will be available online here:

<https://bmcgeriatr.biomedcentral.com/articles/10.1186/s12877-016-0342-y>